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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/735,718	12/12/2000	Stephen Ma	2705-93	5593
20575	7590	09/27/2006		
MARGER JOHNSON & MCCOLLOM, P.C. 210 SW MORRISON STREET, SUITE 400 PORTLAND, OR 97204			EXAMINER HO, DUC CHI	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 09/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/735,718

Applicant(s)

MA ET AL.

Examiner

Duc C. Ho

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-10,13-16 and 19-22 is/are rejected.
- 7) ☒ Claim(s) 3-4, 11-12, and 17-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

***Allowable Subject Matter***

1. The indicated allowability of claims 9, and 11-14 are withdrawn in view of the newly discovered reference(s) to Brewer (US 6,876,657). Rejections based on the newly cited reference(s) follow.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-2, 5-10, 13-16, and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Admitted Prior Art in figure 2, hereinafter referred to as the APA, in view of Brewer et al.(US 6,876,657), hereinafter referred to as Brewer.

Regarding claim 1, the APA discloses the forwarding engine 58-fig.2 as a first processor for performing a lookup for a received data packet from the port 62-fig.2, see page 10, lines 16-22, and the packet is destined for one of the ingress ports. The engine 58 processes the packet's header, and should be able to look up information regarding an ingress port identification and appropriate DSP/modem board, and prepends a L2 Ethernet header containing the information addressed to dial shelf 50 (corresponding to using a first processor in the network access server to perform a routing table lookup for a received packet; determining from the results of the routing table lookup, a routing table identifier, and using the identifier to determine the location of the routing information in the routing table).

The APA, however, does not expressly teach a second processor responsible for processing and forwarding the received packet.

One skill in the art would recognize the advantage of having a plurality of forwarding processor so that packet ordering is maintained, and allowing incoming packets to be routed to a common destination without delay.

Brewer discloses a system and method for router packet control and ordering. The processing block 101-fig.1 prepends a four-byte header on each packet it receives. The header contains identification of which packet forwarding engine port, among the packet forwarding engines 13-1 to 13-3, to use.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the APA with Brewer.

The suggestion/motivation for doing so would have been to maintain the order of packet exiting a router is the same as the order of packets entering the router, and allowing incoming packets to be routed to a common destination without delay.

Therefore, it would have been obvious to combine the APA with Brewer to obtain the invention as specified in claim 1.

Regarding claim 2, the forwarding engine 58-fig.2 of the APA prepends a L2 header to the received packet containing the routing table identifier, such as a destined ingress port from an appropriate DSP/modem board. The second processor as modified by Brewer should be able to remove the L2 header from the received packet, and to forward the packet to the destined location as indicated by the identification.

Regarding claim 5, the engine 58-fig.2 of the APA is capable of classifying whether the received packet is layer three packet, i.e., the IP packets, or higher, and sending to the forwarding processor the layer three IP packets or higher destined to the identified ingress ports.

Regarding claim 6, the engine 58-fig.2 of the APA is capable of passing an indication of packet subclass to a forwarding engine.

Regarding claim 7, the processing identification of an ingress port of the APA informs a forwarding engine what processing remains to be done.

Regarding claim 8, the APA discloses a selection of the DSP/modem board, and therefore the identified ingress port of the board should be known.

Regarding claim 9, 14-15, these claims have similar limitations as claims 1. Therefore, they are rejected under the APA-Brewer for the same reasons set forth in the rejection of claim 1.

Regarding claim 10, the APA includes a FE hub 54-fig.2 for managing access sessions associated with the ingress ports.

Regarding claim 13, this claim has similar limitations as claim 5. Therefore, it is rejected under the APA-Brewer for the same reasons set forth in the rejection of claim 5. The APA discloses the L2TP (Layer 2 tunneling protocol), and VoIP services, see page 3, lines 9-25 of the instant application.

Regarding claims 16, and 19-22, these claims have similar limitations as claims 2, and 5-8, respectively. Therefore, they are rejected under the APA-Brewer for the same reasons set forth in the rejection of claims 2, and 5-8, respectively.

***Allowable Subject Matter***

5. Claim 3-4, 11-12, and 17-18 are objected to as being independent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (703) 305-1332. The examiner can normally be reached on Monday through Friday from 7:00 am to 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

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7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

A handwritten signature in black ink, appearing to read 'Duc Ho', written in a cursive style.

Duc Ho

09-25-06